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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/590,745	08/25/2006	Holger Hansen	AFG 16920-WO-US	1192
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EXAMINER BROOKMAN, STEPHEN A				
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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/590,745

Applicant(s)

HANSEN, HOLGER

Examiner

Stephen Brookman

Art Unit

3644

Period for Reply -- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 25 August 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 25-45 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 25-45 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 25 August 2006 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO/5508)
- Paper No(s)/Mail Date 8/25/2006
- 4) ☐ Interview Summary (PTO-413)
- Paper No(s)/Mail Date _____
- 5) ☐ Notice of Inventor's Patent Application
- 6) ☐ Other: _____

DETAILED ACTION

Drawings

1. The drawings are objected to under 37 CFR 1.83(a). The drawings must show every feature of the invention specified in the claims. Therefore, the holding straps "disposed above and below the seat" as in Claim 34, line 2 and the textile matting secured to the vertical straps between the back support and the head support as in Claim 44 must be shown or the feature(s) canceled from the claim(s). No new matter should be entered. It should be noted that it appears that the holding straps are disposed to the sides of the seat.

Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner,

the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Specification

2. The disclosure is objected to because of the following informalities: in the preliminary amendment to the specification dated August 25, 2006, it appears that an improper day was designated for the filing date of the "December" priority document, such that "December 30" should be "December 20." This same error appears in the incorporation by reference at the bottom of page 2 of the preliminary amendments to the specification.

Appropriate correction is required.

3. The incorporation of essential material in the specification by reference to an unpublished U.S. application, foreign application or patent, or to a publication is improper. Applicant is required to amend the disclosure to include the material incorporated by reference, if the material is relied upon to overcome any objection, rejection, or other requirement imposed by the Office. The amendment must be accompanied by a statement executed by the applicant, or a practitioner representing the applicant, stating that the material being inserted is the material previously incorporated by reference and that the amendment contains no new matter. 37 CFR 1.57(f).

4. The lengthy specification has not been checked to the extent necessary to determine the presence of all possible minor errors. Applicant's cooperation is

requested in correcting any errors of which applicant may become aware in the specification.

Claim Rejections - 35 USC § 112

5. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

6. Claims 25-45 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

The claims are generally narrative and indefinite, failing to conform with current U.S. practice. They appear to be a literal translation into English from a foreign document and are replete with grammatical and idiomatic errors.

Claim 25 recites the limitation "the pattern of the seats" in line 6, "the width of the seat" in line 12. There is insufficient antecedent basis for this limitation in the claim. Further, the language "within the pattern of the seats that are to be installed" in lines 6 and 7 is unclear, as this language is confusing and it is not clear what structure this represents.

Claim 26 is unclear with regard to the language "that are connected to unitary ones of said transverse straps." It is unclear what structure this represents, especially with regard to "unitary ones." It is further unclear what structure is being defined by "a double-rowed back-to-back arrangement."

Claim 29 is unclear in the language "to which the respectively other strap," which is confusing.

Regarding Claim 34, it is unclear whether the applicant is claiming the holding straps above and below the seat or if the seat must merely be capable of being secured with such straps. Further, it is unclear how the straps can be anchored to the mesh framework, as it appears that the straps are already part of the mesh framework, in Figure 3.

Regarding Claim 35, it is unclear whether the applicant is claiming the seat connected to the vertical straps or if the seat merely has to be capable of such a connection. Further, Claim 35 is unclear in general, as the progression of limitations is confusing and the claim is generally narrative with regard to the function and intended use of the seat pan. It is unclear what structure the applicant is trying to claim. For example, in lines 4-5, "lateral support straps that respectively laterally border said seat pan" is confusing with regard to what structure the applicant is defining or claiming. Further, for example, "securement location" is unclear, as is the language "is guided back to said vertical straps." Further, "front corners" is unclear, as it is not clear what direction determines "front."

Regarding Claim 36, the language "is guided between said vertical straps" is unclear and in narrative form.

Regarding Claim 37, it is unclear what structure represents a "control portion" and the language "is guided over a guide member" is confusing and in narrative form.

Regarding Claim 41, the language, "wherein said head support continues in lateral support surfaces" is confusing, rendering the claim unclear.

Claim 43 recites the limitation "said holding strap" in line 1. There is insufficient antecedent basis for this limitation in the claim.

Claim Rejections - 35 USC § 103

7. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

8. The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

9. Claims 25, 26, and 28-40 are rejected under 35 U.S.C. 103(a) as being unpatentable over Reilly (U.S. Patent 3,868,143).

Regarding Claim 25, Reilly teaches the combination of an aircraft (air vehicle) having a transport compartment for seats mounted to the vehicle for conveying personnel. This seat is deemed to be in a central row of the transport compartment (i.e. in the transport compartment, central being within the

compartment and at least some distance from a fuselage wall). Mesh frameworks composed of textile straps (i.e. crisscrossing straps made of textile 21, 42, 47, etc.) are suspended within a pattern of the seating arrangement between the roof and floor surfaces of the transport compartment (i.e. the straps are within the transport compartment and located between the roof and floor) and oppositely disposed side walls that extend in the direction of movement of the vehicle (i.e. the straps are within the transport compartment, between the fuselage walls, which, inherently, as fuselage walls are constructed, extend along the direction of movement of the vehicle), wherein the seat is individually secured to an associated one of said mesh frameworks (Figure 1) which is in turn secured, under tension (i.e. weight of the components induces tension), to support elements of the vehicle (i.e. the apparatus is inherently mounted to within the vehicle to some support elements), wherein the mesh framework is comprised of two transverse straps (47 or 42, having components in the direction transverse to the movement of the airplane) and two vertical straps (21, having components in the vertical direction), wherein said transverse straps are spaced from one another by the width of the seat (Figure 1) and are suspended between said side walls in the vicinity of the roof surface (i.e. by being in the seating area, they are deemed to be within the vicinity of all components of the aircraft, including the roof surface, and being within the compartment, are deemed to be between the side walls), wherein said vertical straps are spaced from one another by the width of the seat (Figure 1) and are suspended between the roof

surface and the floor surface (i.e. the straps are within the seating compartment and therefore are located between the roof and floor, and wherein the transverse straps and vertical straps are interconnected at points where they intersect one another (i.e. they are interconnected at the intersection of the seat 39, which is the intersection of the straps, as well as the intersection point seen between 42 and 21 in Figure 4).

Reilly does not expressly disclose a row of these seats disposed next to one another in a longitudinal axis, however, Reilly does teach the seat as "side-facing" (Abstract, line 1) and as it is old and well known to feature multiple seats in an aircraft, it would have been obvious to one of ordinary skill in the art at the time of the invention to arrange these seats in a row in a longitudinal axis of the vehicle and oriented transverse to a direction of movement of the vehicle (i.e. side facing, and oriented lengthwise from front to back of the vehicle) for the purpose of carrying more troops efficiently.

Regarding Claims 26 and 33, Reilly does not expressly disclose a double-rowed back-to-back arrangement of two seats or two mesh frameworks. However, it would have been obvious to one having ordinary skill in the art at the time of the invention to feature this configuration, as it is old and well known that rows of seats can be placed back-to-back and therefore in a configuration that would place them in two or more rows, for the purpose of efficient use of space within

the aircraft. This would mean that the mesh framework would include a doubled arrangement of the vertical straps (i.e. one arrangement for each seat) such that each of the two seats has associated therewith its own vertical straps that are connected to unitary ones of said transverse straps (i.e. connected to the transverse straps by way of the seats and the intersection point and as described above in the rejection of Claim 25). Specifically regarding Claim 33, the arrangement made obvious by the rejection of Claim 26 provides two mesh frameworks next to one another in the longitudinal axis of the aircraft. The mesh frameworks are respectively connected to a vertical strap (i.e. each framework has connection to vertical strap 57).

Regarding Claim 28, the vertical straps and transverse straps are sewn together at their points of intersection (i.e. transverse straps 42 and vertical straps 21 are sewn together, as seen in Figure 4).

Regarding Claim 29, in order to connect the vertical and transverse straps at their points of intersection (namely, at the point of intersection that is the seat), eyelets are disposed in one of the straps (i.e. buckle 45 is disposed in strap 47) to which the respectively other strap is connected via detachable connection means (i.e. the transverse strap 47 is connected to the vertical strap 21 via the seat and buckle/eyelet 45, which is inherently detachable/capable of being detached).

Regarding Claim 30, a support structure of textile straps (22) which is held in place by the vertical straps (i.e. through the connection as seen in Figure 4 with strap 42 and strap 21), is disposed between two vertical straps that are suspended at a seat width apart (i.e. between straps 56 and 57, which are suspended at a seat width apart in Figure 1, and the planes of straps 56 and 57 are outside of the support structure of straps 22, such that straps 22 are between these straps 56 and 57).

Regarding Claim 31, the support structure (straps 22) is comprised of two intersecting support straps (i.e. the two straps are intersecting with other straps in the mesh framework, namely the vertical straps 21) suspended in a plane of the vertical straps (Figures 1 and 4), and two further support straps that extend between the vertical straps (i.e. straps 40, supporting the seat occupant, and extending between the two vertical straps as seen in Figure 1), and wherein ends of the intersecting support straps (22) and further support straps (40) are respectively connected to the vertical straps (i.e. the straps 22 are directly connected to straps 21 in the junction seen in Figure 1, and the straps 40 are connected to the vertical straps by way of connection to the entire mesh framework).

Regarding Claim 32, a strap-tensioning mechanism is disposed in the support structure (i.e. the buckle between straps 40 is inherently a strap-tensioning mechanism, Figure 1).

Regarding Claim 34, a seat (39) is provided that is capable of being secured to the vehicle via holding straps disposed above and below the seat (i.e. all of the straps in the mesh framework) and wherein the holding straps belonging to the seat are partially anchored to the mesh framework (i.e. by being part of the mesh framework) and partially anchored to the vehicle (i.e. through connections to the surrounding structure).

Regarding Claim 35, a seat (39) is provided that is to be secured to the vertical straps of the mesh framework (Figures 1 and 4) and that has a safety harness for securing an occupant of the seat (41), wherein to support a seat pan that is embodied as a component that is resistant to pressure (i.e. it can handle a person sitting in the seat pan 39), lateral support straps bordering the seat pan (i.e. the straps 22 as part of the mesh framework) are secured to said vertical straps (21), wherein when the seat pan is in a sitting position (Figures 1 and 4) a portion of the lateral support strap extends from a lower securement location (i.e. one end of the straps) with the vertical straps (i.e. where the vertical strap meets the lateral support strap in Figure 1) along side edges of the seat pan (i.e. near the side edges of the seat pan) to front corners of the seat pan (i.e. near corners

of the seat pan, any corners capable of being deemed "front"), and from there, inclined relative to a vertical axis (i.e. the straps 22 are inclined), is guided back to said vertical straps (i.e. connected to the vertical straps or guided back via the seat pan itself) and is secured to an upper securement location (i.e. connected at the other strap end) and the seat pan is capable of being folded or pivoted (i.e. it is made of a foldable material).

Regarding Claim 36, the rear end of the seat pan extends between the vertical straps (i.e. it is between the straps 21 as seen in Figure 1) and is capable of being guided between the straps during a pivoting movement.

Regarding Claim 37, the rear end of the seat pan is deemed to be a control portion, as it is capable of being grasped and guided over other structures in the vehicle and as it is capable of being grasped, it is capable of being considered handle means supported by the roof of the vehicle (i.e. by way of the overall construction, the roof provides structural support to the entire apparatus).

Regarding Claim 38, the seat pan has a tubular frame (50) and a textile seating surface (i.e. sling, 39 and fabric sling 37, Column 3, lines 31-42).

Regarding Claim 39, the lateral support straps are affixed to the seat pan at the front corners (i.e. the straps 22 are affixed to 39 as seen in Figure 1 near the front corners).

Regarding Claim 40, the lateral support straps (22) are one-piece belt straps.

10. Claims 27 is rejected under 35 U.S.C. 103(a) as being unpatentable over Reilly (U.S. Patent 3,868,143) in view of Hansen et al (GB 2,276,080).

Reilly does not expressly disclose a strap-tensioning mechanism in the mesh framework. Hansen et al teach a strap-tensioning mechanism (i.e. self-tightening device 21) in a mesh framework seat which ensures that there is no slack (page 7, lines 30-32). Therefore, it would have been obvious to one having ordinary skill in the art at the time of the invention to include a strap tensioner in order to prevent the straps from being loose and unstable by not having slack, as taught by Hansen.

11. Claims 41, 42, 44, and 45 are rejected under 35 U.S.C. 103(a) as being unpatentable over Reilly (U.S. Patent 3,868,143) in view of Keating (U.S. Patent 2,829,702).

Regarding Claim 41, Reilly does not expressly disclose a separate textile head support. Keating teaches a textile head support (head straps 31, 32) suspended in a plane of a back support (45) between vertical straps (22) wherein the head

support continues in lateral support surfaces (i.e. the support curves around the head area perpendicular to the plane of the back support) disposed above lateral support straps (30) and wherein the lateral support surfaces are connected at front free ends to a support strap (13) that is at an incline and extends from the roof to the floor. Keating teaches the head support for the purpose of providing enhanced support for the seat occupant's head. Therefore, it would have been obvious to one having ordinary skill in the art at the time of the invention to provide the head support straps of Keating to the invention of Reilly in order to provide a well-known and proven structure of head support using textile materials.

Regarding Claim 42, neither Reilly nor Keating expressly discloses the head support being made of a partially transparent textile material. However, Keating does teach the seat being made of a net/webbing (i.e. resilient net 45) which is partially transparent it is deemed that the upper part of the webbing is part of the textile head support. It would have been obvious to one having ordinary skill in the art to try using a transparent material as part of the head support for the purpose of providing capabilities for the seat occupant to see beyond the confines of the head support.

Regarding Claim 44, an additional textile matting is secured to the vertical straps between the back support and the head support (i.e. 33 acts an additional textile matting in this location).

Regarding Claim 45, Keating does not expressly disclose the collision matting being unitarily formed with the head support. However, for the purpose of simpler manufacturing from fewer parts, it would have been obvious to one having ordinary skill in the art at the time of the invention to form these similar parts as one unitary structure.

12. Claim 43 is rejected under 35 U.S.C. 103(a) as being unpatentable over Reilly (U.S. Patent 3,868,143) in view of Keating (U.S. Patent 2,829,702) and Hansen et al (GB 2,276,080).

Neither Reilly nor Keating expressly discloses the holding strap having an actuatable detachable tensioning device. However, Hansen et al teach a strap-tensioning mechanism (i.e. self-tightening device 21) in a mesh framework seat which ensures that there is no slack (page 7, lines 30-32). Therefore, it would have been obvious to one having ordinary skill in the art at the time of the invention to include a tensioning device in order to prevent the strap from being loose and unstable by not having slack, as taught by Hansen. This device would inherently be actuatable (i.e. operable) and detachable (i.e. it would be possible to remove the device from the strap).

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Stephen Brookman whose telephone number is (571) 270-5513. The examiner can normally be reached on Monday through Thursday 10:00 AM EST to 4:00 PM EST, away alternating Fridays.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Michael Mansen can be reached on (571) 272-6608. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/S. B./
Examiner, Art Unit 3644

/Timothy D. Collins/
Primary Examiner, Art Unit 3643